

Swim Arizona

Volume 27 Number 4

December 2002

Swimming and Osteoporosis

By Dr. Jessica Seaton

Osteoporosis is a subject, which should be near and dear to the hearts of most masters swimmers, but which many choose to ignore. Many swimmers think it won't affect them, either because they feel fine, or because they exercise. They are only partially right, and what they don't know can hurt them.

Osteoporosis is a disorder that affects the entire skeleton. It is characterized by a significant loss of bone mass leading to an increased susceptibility to fractures of the hip, spine, and wrist. It affects up to 24 million Americans, of which 80% are women. It is estimated that currently 10 million individuals already have osteoporosis, with 14 million more having low bone density (osteopenia). That means that approximately 1 in 4 women and 1 in 8 men over the age of 50 have osteoporosis.

As it is a painless condition, most people are unaware they have osteoporosis. Often the first sign of significant bone loss is a fracture, usually of the hip, forearm, or vertebra. About 32% of women and 17% of men in the United States who live until age 80 experience a hip fracture. The risk of vertebral fractures is even higher. Hip fractures in the elderly are far more than an inconvenience—1 in 4 patients over the age of 50 dies within the year following a hip fracture.

Although some cases of osteoporosis are due to drugs (i.e., steroids) or the result of a disease (i.e., rheumatoid arthritis), most cases are due to either older age (senile osteoporosis), or to a drop in estrogen (postmenopausal osteoporosis). If one of your parents had a hip, forearm, or vertebral fracture you can pretty much assume that you are at risk for osteoporosis. However, the converse is not necessarily true.

Bones are constantly remodeling. While in space, astronauts' bodies respond to the lack of gravitational stress on the bones by decreasing their bone mass. On

the other end of the spectrum, weightlifters experience an increase in bone density due to the stress of the extra weight on the bones. The more stress placed on the bones over a period of time, either through heavy weights and/or by impact, the more the body responds by increasing the bone density.

The process is actually a bit more complex than that. Not only does the body lay down more bone, it actually remodels the structure of the bone along the lines of stress. If you take up running, eventually your body will remodel the structure within the bones in response to the new stress. Stress fractures are often caused by running too much, before the body has had a chance to remodel the bones based on the new stresses.

So where does swimming fit in? Unfortunately swimming does not place any significant stress on the bones. Study after study comparing swimmers with other athletes, shows swimmers to have similar bone density to couch potatoes. Even the increase in muscle mass, and the concomitant pull on the bones, is not enough to stimulate a significant increase in bone density. This is not to say that older people shouldn't swim. Of course swimming is wonderful for cardiovascular fitness, flexibility, and a certain amount of strength. Swimming with a masters team has the added advantage of a social environment, shown to be a significant factor in health and longevity.

What is a swimmer to do?

Swimmers need to supplement their aquatics training with some weight-bearing exercise. The optimal sports for maintaining or increasing bone density, as well as improving overall coordination, are weightlifting, basketball, and volleyball. Running, jumping rope, and hiking, are not quite as effective at building bone, but will help improve coordination. Yoga does not increase bone density. However, it is an excellent way to improve strength, flexibility, and coordination, which are all important in preventing falls.

What about diet?

In addition to eating a well-balanced diet, rich in fruits and vegetables, most older adults need to supplement

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We couldn't do it without them! And, without whom, you ask?

Well, thanks to all the volunteers who keep Arizona Masters Swimming afloat! Kudos to the Boards of Directors (you've seen their names listed in our newsletters over the years). You volunteers have all kept AZ LMSC a lively organization that brings good things to many hundreds of Masters swimmers in Arizona.

It's volunteers who make up the Boards of Directors, and as a former chairman of AZ LMSC, I was "rescued" many times by our volunteers. So I want to encourage ALL of you readers/members to think about volunteering sometime too! What would we do without a chair, registrar, treasurer, newsletter editor, secretary, historian, coaches rep, or meet director? All keep us connected with US Masters Swimming programs and each other!

Good job, past and present Board Members and officers of AZ LMSC - I just wanted to express my gratitude for all you've done to help us Masters swimmers in Arizona. It is not easy, volunteering time and energy, but it sure is appreciated and keeps Masters swimming a wonderful resource for good health, fun and camaraderie.

Helen Bayly
Immediate Past Chairman

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Send written and photographic submissions to either Doug Adamavich, coruscant_az@yahoo.com. Please submit your article in one of the following electronic formats: Text(*.txt), Word(*.doc), or Excel(*.xls). All photographic submissions must be in one of the following electronic formats: GIF(*.gif), JPEG(*.jpg), or Bitmap(*.bmp) and will be converted to an 8-bit grayscale image. Articles are due on the 15th of the month before the publication date. Swim Arizona reserves the right to edit any submission accepted for publication. We welcome your widespread use and sharing of our materials, and ask that you give credit to AZ LMSC. Back cover artwork provided by Max Von Isser.

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Around the Deck

JANUARY POSTAL SWIMS ARE COMING!

We have two postal swims that are taking place this January. One is a one hour swim while the other is a 1650 swim. Both events are listed under the postal section of the USMS web site. Check them out and participate in them. It is a good opportunity to see how well your training is going.

REGISTRATION TIME

It's that time again, time to register with Masters. We have included the form in this issue of the newsletter so you can fill it out. In addition, you can download the form from the Arizona Masters web site. Also, your coaches should have copies of the form available. We need to have everybody registered so that all practices and meets are insured. Your help is appreciated.

2003 NATIONALS

Hard to believe but we are less than six months away from hosting the Short Course National Championships! Regardless if you are swimming or not in the meet, start planning on how you can help make this the best Nationals ever. Let your team representative know if you can help out. Thanks a lot!

ARTICLES WANTED

This call goes out to aspiring writers in the Arizona LMSC, *Swim Arizona* wants your articles! Coaches, share a workout, swimmers, share your stories. Everybody can contribute so submit an article!

JANUARY MENTOR SWIM CLINIC

Mark your calendars now. On January 18th and 19th at Phoenix Swim Club, the Arizona LMSC is hosting a Mentor Swim Clinic. This clinic is designed to serve the needs of both our fitness and competitive swimmers. Additionally, there will be a special portion set up just for coaches. The clinic will be led by 1987 USMS Coach of the Year and Head Coach of Walnut Creek Masters, Kerry O'Brien.

Classroom instruction as well as in water training will take place. All swimmers will have the chance be video taped both above and underwater and have the tapes reviewed by the coaches at the clinic. Additional information and the sign up form will be in the next issue of *Swim Arizona*. If you have any immediate questions, contact Mark Gill at (480) 775-1485 or at mark.gill@asu.edu.

IMSHOF INDUCTION CEREMONIES

On Saturday evening, January 11, 2003, the International Swimming Hall of Fame, located in Fort Lauderdale, Florida, will induct its first class of Honorees into the International Masters Swimming Hall of Fame. The group consists of 15 outstanding Masters athletes. They are Dr. Ransom Arthur*, June Krauser, Gus Langner*, Clara Lamore Walker, Ray Taft*, Jayne Bruner, Graham Johnston, Tim Garton, Gail Roper, Kelley Lemmon, Ardeth Mueller, Barbara Dunbar, Maxine Merlino, Patty Robinson Fulton and Peg Hogan.

* deceased

RECORD BREAKING SWIMS AT MEET

19 World, 28 National and 83 State records were broken this fall at the Short Course Meters State Championships held at ASU. Leading the record-breaking barrage was Karlyn Pipes-Neilson of San Diego with 6 world records (200 fly, 200 free, 200 back, 200 IM, 400 free & 50 back). Following on her heels was San Diego teammate Caroline Krattli with 4 World records of her own (50, 100, 200 breast and 100 IM).

Arizona was represented with 4 record breakers of our own, Camilla Johansson (50 & 100 back), Jane Swagerty-Hill (50 back & 100 IM), Greg Dozer (400 IM) and Ron Johnson (200 breast & 200 IM). Steve Borowski of Hawaii accounted for the remaining two world records set (50 & 100 fly).

Additionally, Camilla Johansson (100 back), Jane Swagerty-Hill (50 free) Ron Johnsons (200 fly & 100 breast) all set nationals records.

Nearly a quarter of the 83 state records broken were set by the 45-49 age group. The group was paced by the spectacular swimming of Stephanie Rollins and Greg Dozer, each who broke 7 records. Women lead the men with 43 records bettered to 36. For more information on the Arizona state records, look on the web at www.sundevilmasters.org under state records.

What's all this about Negative Splits?

by Coach Emmett Hines

Negative Splitting. You hear about it every day at workout. Many of our workout sets are designed with negative splits involved. You know (or at least have been told that) negative splitting is important. But, do you really swim these sets the way they are intended to be swum?

What: To Negative Split (or N/S) a swim means to swim the latter portions of a distance faster than the earlier portions of the swim - ie. the last half in less time than the first half - hence the word "negative".

When the coach says to swim a N/S 300 he means the last 150 yards should be swum faster than the first 150 yards - say 2:05 for the first 150 and 2:01 for the last 150 (a 4 second N/S) for a total of 4:06 for the 300. A 300 that is N/S by 100s means that each 100 is faster than the previous one - say 1:45, 1:42, 1:39 - same 4:06, just swum a little differently.

Why: Compare this to a 4:06 300 swum "normally" with the front 100 at about 1:35, then, succumbing to lactate fatigue, each successive leg gets slower - say 1:43 on the middle leg and finally 1:48 on the back 100. This guy will finish the swim in more pain and with less control than his similarly conditioned lane partner who negative splits the swim.

The N/S swimmer will enjoy a feeling of greater control and faster speed as the swim progresses. The "normal" split swimmer will enjoy speed for the first 100 and then begin suffering physically as lactate accumulates and speed decreases. He will suffer psychologically as continued increases in effort are rewarded with even slower speeds and loss of control (not to mention being passed by all the people that are N/Sing the swim properly).

(Note the subtle use of quote marks around "normal" in the preceding explanation. This is to indicate that this term has been applied incorrectly. Actually, coaches prefer to use the terms "positive" or "sucker" when referring to this type of splitting.)

In the long run we really want your "normal" splits for any distance that takes you in excess of 60 seconds to negative (or even) splits. Once you get good at this you will automatically N/S longer swims because you will be able to swim them faster, with less pain and more control.

Warning - until you have a lot of experience with

negative splitting you cannot rely on your body to give you accurate feedback about your swimming pace. That sucker split swimmer, above, would have felt like he kept swimming harder every 100 even though he kept getting slower. But, judging by effort alone he would say something like "Gee coach, I sure felt like I swam the last half harder than the first half!" - and I might respond "I could tell you swam the last half harder - there is, however, a distinction between harder and faster."

The place to train for N/S swimming is in workouts - everyday. You must be constantly aware of the clock and what pace you are swimming. (If you are blind you have options, not excuses - Get closer to the clock, Get prescription goggles, Get a sports watch - hell, they even have these with braille readouts, Bring a personal pace clock to set by your lane.) Without this constant feedback you cannot learn to N/S effectively.

As your coach, I can offer you an iron-clad guarantee - If you do not know your splits on a given swim then it was not a negative split.

Terminology distinction: Negative splits (N/S) refer to pacing within a continuous swim - say within a 300 or 500 or 1000. Descending (DEC) swims refer to pacing changes within a set of repetitions - say 3x100 DEC 1-3. (I know, it ought to be DES, but some dyslexic coach years ago coined the abbreviation DEC and it stuck - "Adapt or die," I always say!)

Coach Emmett Hines is the head coach of H2Ouston Swims. He has coached competitive Masters swimming in Houston since 1982 and was selected as United States Masters Swimming's Coach of the Year in 1993. This Article first appeared in Schwimmvergnugen, the monthly newsletter of H2Ouston Swims.

LONG COURSE METERS TIMES

The top LCM swimming performances of 2002 are now available online at www.arizonamasters.org. Check them out when you can. Oh, and next time you see Barry Roth be sure to thank him for the effort he put forth to complete this task. Thanks Barry!

Ask the Swim Doctor

By Dr. Paul Hutinger

This Month's version of "Ask the Swim Doctor" concentrates on pre-meet warmups. This article was originally published in the November 1998 issue of the Florida LMSC newsletter.

Question: *Is there any one good warm up for a meet?*

Answer: If you have a warm up that has been successful for you in the past, use it. If you normally swim about 2000 yards in your training, you should swim about 500 yards for your warm up.

Concentrate on technique, be relaxed, and loosen up. Pace 50's will help on your distance events. Include 50's and 25's of each stroke, gradually building up to race pace.

Get acquainted with the starting blocks by doing several starts for each of the strokes you are swimming. Sprint as you plan to do in your race, because your body needs to get used to swimming fast. Do turns for your events, and if the meet is outdoors, note how the wind is blowing the backstroke flags. Observe how that changes the number of strokes you need from the flags to the wall at each end of the pool.

It's a good idea to practice the warm up you will be doing at the meet in your training sessions, especially the week before the meet.

Preparation for the meet also includes eating whatever foods work well for you. Do this before workouts, so your body doesn't have to adjust to new foods. Get to the meet on time and you won't be rushed. Check the heat sheet to know your events and lane assignments. Do a short warm up and stretch your muscles for each event. Cool down after each event to reduce the buildup of lactic acid in your muscles.

Mentally prepare for each event. Think about the event and visually go through your race: step up on the block, go through each stroke, turn and touch out at the finish (see "Ask the Swimming Doctor," May 1998). Program your meet so you will be on automatic, and you will make fewer mistakes, be more relaxed, and enjoy the thrill of the competition, whether it's your first meet or the umpteenth.

"Ask the Swim Doctor" is a column written by Dr. Paul Hutinger. This column appears regularly in the Florida LMSC quarterly newsletter, which is the recipient of the 1998 USMS Newsletter of the Year Award. He is also the Coach and Fitness Trainer, Florida Maverick Masters of St. Petersburg, FL. Dr. Hutinger is also on the USMS Awards Committee and Professor Emeritus at University of Western Illinois.

(Continued from page 1)

their diet with extra calcium (usually combined with magnesium in a 2:1 ratio). The most absorbable forms of calcium are calcium citrate, gluconate, or lactate. Calcium carbonate and oyster shell are less effective. Most people should get between 800 and 1000 mg of calcium per day, while postmenopausal women should increase to 1500 mg per day. Soy products also help stimulate bone production.

Is there more?

There is a painless test, which measures bone density. This and other topics, such as the various diagnostic and monitoring methods, supplemental hormones, drug therapies, and micro-nutrients are important but beyond the scope of this article. Let me know if you are interested in more information.

Jessica Seaton, DC is a chiropractic orthopedist in private practice in West Los Angeles. She is chairperson of the SPMA Sports Medicine Committee and a member of the USMS Sports Medicine Committee.

STROKE TIPS

5 Tips for a More Effective Freestyle

Relax. 50% of the arm cycle, the entire recovery and glide phase of the stroke, should stay relaxed while the effort is being directed into the underwater pull.

Streamline. Get out of your own way. The speed you are moving when you push off the walls is the fastest you will be moving in the entire length. Don't slow yourself down by lifting your head too soon or taking a big kick.

Roll Hips. Don't rely only on your arm muscles for power. Involve the various muscles that extend down your back and side by driving your hips from side to side each time you extend your arms into the water in front of your head.

Extend. Push back past your hips until your arm is locked at the elbow. Then exit the water by lifting the elbow, keeping the arm and hand relaxed.

Turbo Kick. A small kick is all you need to balance your stroke and maintain a good body position. Want to go faster? Keep the small kick but increase the intensity. Large kicks take too long, take too much energy and produce too much drag.

Source: *Swim.net*

The Arizona Mentor Coach and Swimmer Clinic

January 18-19, 2003

Start off 2003 with a weekend focused on swimming technique, fitness and fun. Sign up now, the clinic will be limited to the first 90 swimmers. The entry deadline is January 10th.

Location Phoenix Swim Club
2902 East Campbell Road
Phoenix, AZ 85016

Clinic Directors Mark Gill
MarkGill@usms.org
Chris Aikman
(480) 921-1178

Coaching

Our Mentor Coach is Kerry O'Brien. He is the 1987 USMS Coach of the Year. Twice he has been invited to run training camps at the U.S. Olympic Training Center. During his 22 years as the head coach of Walnut Creek Masters, they have won 28 national titles. In addition to Kerry, the coaches attending the clinic will also be on deck to give swimmers a tremendous amount of individual attention.

Swimmers Clinic

With activities both in and out of the water, the weekend is devoted to improving your technique and understanding of how to swim more efficiently. Swimmers will be video taped on both days and will have the opportunity to review the tape with the clinic coaches. Additionally, there will be a session on dryland training and stretching. Overall, you will receive 8.5 hours of instruction plus 3 hours of optional workouts.

Coaches Clinic

During the weekend you will receive a 3 hours of classroom-based workshop on coaching tips and technique instruction. The classroom section is supplemented with on-deck time coaching the participants of the swimmer clinic under the direction of the Mentor Coach.

Social

At the conclusion of the Saturday session, everyone is invited to head around the corner from Phoenix Swim Club to the Monastery for food and drinks.

Hotel

The Hampton Inn & Suites located at 1429 N Scottsdale Road is offering rates that start at \$59. Call (800) 426-7866 and ask for the US Masters rate.

Saturday, January 18th

8:15-8:30	Coaches check-in
8:30-10:30	Coaches Clinic with Mentor Coach
10:30-12:00	Swimmers workout (optional) / Coaches lunch
11:30-12:00	Swimmers check-in
12:00-1:00	Classroom session with swimmers and Mentor Coach
1:00-3:00	Pool clinic and videotaping
3:00-4:00	Video analysis
4:00	Social at The Monastery

Sunday, January 19th

8:30-9:30	Coaches Clinic with Mentor Coach
9:00-10:00	Dryland Demonstration
10:00-11:00	Classroom session with swimmers and Mentor Coach
11:00-12:30	Pool clinic and videotaping
12:30-1:30	Video analysis
1:30-2:00	Wrap up and evaluation
2:00-3:30	Swimmers workout (optional)

The Arizona Mentor Coach & Swimmer Clinic

Registration form

Name _____ Team _____

Address _____

Home phone _____ Work phone _____

Email address _____

Circle the type of swimming activity you primarily train for.

Triathlons

Fitness

Open Water

Pool Competitions

“I, the undersigned participant, intending to be legally bound, hereby certify that I am physically fit and have not been otherwise informed by a physician. I acknowledge that I am aware of all the risks inherent in Masters Swimming (training and competition), including possible permanent disability or death, and agree to assume all of those risks. AS A CONDITION OF MY PARTICIPATION IN THE MASTERS SWIMMING PROGRAM OR ANY ACTIVITIES INCIDENT THERETO, I HEREBY WAIVE ANY AND ALL RIGHT TO CLAIMS FOR LOSS OR DAMAGES, INCLUDING ALL CLAIMS FOR LOSS OR DAMAGES CAUSED BY THE NEGLIGENCE, ACTIVE OR PASSIVE, OF THE HOST FACILITIES, MEET SPONSORS, MEET COMMITTEES, OR ANY INDIVIDUALS OFFICIATING AT THE MEETS OR SUPERVISING SUCH ACTIVITIES. In addition, I agree to abide by and be governed by the rules of USMS.”

SIGNATURE _____

Fees

2003 USMS members	\$37
Non-USMS members	\$42
Coaches	FREE

Be sure to include a copy of your 2003 USMS card. Please make your check payable to **Arizona LMSC**. Mail the check along with this completed and signed registration form to:

Mentor Coach & Swimmer Clinic
c/o Chris Aikman
1245 West 1st Street # 107
Tempe, AZ 85281



13th Annual Polar Bear Classic

Sunday, February 2, 2003

9:00 AM warm-up
10:00 AM meet start

Meet director: Rane Stites, (520) 621-4203.

Sanctions: Sanctioned by the Arizona LMSC for USMS, Inc., Sam Perry, Chairperson, (480) 941-0232, email: azperrys@hotmail.com

Sanction number: 483-0002

Eligibility: Open to all registered Masters swimmers holding a valid 2003 USMS card. For further information on registration contact Marilyn Fogelsong, mfogelsong@aol.com or 991 E. Calle Mariposa, Tucson, AZ 85718.. A \$5.00 late fee will be assessed for deck USMS registrations.

Rules: 2003 USMS rules apply. Limit of five (5) individual events. Breaks as requested.

Entries and fees: Entries must be received by January 25, 2003. Flat rate fee of \$17.50 for a maximum of 5 events. Only enter events you plan to swim. Please use an Arizona LMSC consolidated entry card; fill it out completely front and back and be sure and enter seed times for all events you wish to swim. Consolidated entry cards are available online at www.ArizonaMasters.org.

Mail check made out to Ford Aquatics, consolidated entry form, photocopy of 2003 USMS card to Rane Stites, PO Box 44233, Tucson, AZ 85733; questions, call Rane at (520) 621-4203.

Deck entries: \$5.00 surcharge plus \$5.00 for each event. Meet will be pre-seeded. Deck entries will be seeded into outside lanes on an as available basis. Deck entries will close at 9:30 AM sharp!

Event seeding: All events will be swum slowest to fastest.

Location: University of Arizona Hillenbrand Aquatic Center located on Campbell Avenue between 6th Street and Speedway. Outdoor, 18 lane, 25 yard pool operated at 82° F with non-turbulent lane lines and electronic timing. We will run 8 lanes for competition and set aside the other lanes for warm-up during the meet.

Questions????? Call the meet director: Rane Stites at (520) 621-4203

enter the 1650
OR the 1000,
not both

Order	Event
1	1000 Free
2	1650 Free
3	200 Free
4	50 Fly
5	200 Back
6	100 Breast

Order	Event
7	100 Free
8	200 IM
9	50 Back
10	200 Fly
11	100 IM
12	400 IM

Order	Event
13	50 Breast
14	100 Back
15	500 Free
16	100 Fly
17	200 Breast
18	50 Free
19	200 Relays (Medley and Free)

NATIONAL RELAY REQUEST FORM

(Use this form to be included on relays at USMS Nationals in Tempe May 15-18, 2003)

One of the most important parts of the team aspect in swimming is participating in relays. At the National meet relays are a great way to get to know your Arizona teammates while helping the team score points at the same time. Relays are worth double the individual event point values and are critical in our quest for a team title.

There are three different relay divisions: Women's, Men's and Mixed. The Mixed division requires 2 women and 2 men on each relay. For the short course yards season the relay age groups are broken down as follows: 19+, 25+, 35+, 45+, 55+, 65+, 75+, 85+... The age group of a relay is determined by the youngest swimmer on the relay.

At national meets all swimmers registered with the Arizona LMSC swim on the same team. In 2003, with the National Championship to be held at ASU, there will be a very large number of AZ swimmers participating (there were over 300 in 1994). With this large "pool" of swimmers we will have an excellent chance of winning the overall large team titles (Women, Men & Combined). Part of the quest for the team titles will depend on scoring lots of relay points.

In order to help organize the Arizona swimmers into relays for the national meet Hop Bailey has developed a computer program that will maximize team points and participation. Our goal is to put together the best combinations for Arizona and at the same time allow everyone who wants to be in on the fun to participate on at least one relay.

If you would like to take part in relays at Nationals please fill out the National Relay Request Form included elsewhere in this newsletter and send it in no later than April 6, 2003. We ask that you submit unshaved and untapered 50 yard times that have been achieved in a 25 yard pool during the 2002-2003 season. All relay entry fees will be paid for by the Arizona LMSC. Questions can be directed to Jim Stites: swim1@qwest.net.

NAME _____ **AGE (on 05/18/03)** _____ **PHONE()** _____

Fill in times below for the strokes you are willing to swim. These times should be unshaved untapered times achieved in a 25 yd. pool during the 2003 season.

STROKE:	seconds . tenths
50 yd. Backstroke	_____ . _____
50 yd. Breaststroke	_____ . _____
50 yd. Butterfly	_____ . _____
50 yd. Freestyle	_____ . _____

Place a check mark by the relays you will be available to swim. Relays are the last event on each day and will be swum in the late afternoon:

Friday May 16, 2003:

_____ **mixed 200 medley relay**
_____ **men's 200 free relay**
_____ **women's 200 free relay**

Saturday May 17, 2003:

_____ **men's 200 medley relay**
_____ **women's 200 medley relay**

Sunday May 18, 2003:

_____ **mixed 200 free relay**



26th Annual One Hour Postal Swim
2003 United States Masters Swimming Long Distance National Championship

Sanctioned by the Oregon LMSC for USMS, Inc.
Sanction Number: 373-P01

Date: All swims must take place during January 2003.

OBJECTIVE: To swim as far as possible in one hour. The total number of yards swum determines the order of finish. If two or more swimmers complete the same distance, a tie will be declared.

VENUE: Any pool 25 yards or longer. (For events swum in meter pools, multiply the distance swum by 1.0936 and round down to the nearest five yard increment. Submit the distance in yards.)

ELIGIBILITY: Each participant must be registered for 2003 with USMS or if non-US a similar body in the swimmer's country. **A COPY OF YOUR 2003 REGISTRATION CARD MUST ACCOMPANY YOUR ENTRY!**

INDIVIDUAL EVENTS: Men and women separately will compete as individuals in the following age groups: 19-24, 25-29,, 100+. The swimmer's age on the day the event is swum determines the entrant's age for the One Hour Swim.

RELAY EVENT: Two team relay events will be contested: 1) a 3 swimmer, same gender team and 2) a mixed 4 person team (2 men & 2 women). The team with the greatest total yardage will be declared the winner. The age of the youngest member determines the age group of the team: 19+, 25+,, 95+. Each team member must also have entered the individual event for his/her age group. All team members must be registered with the same club. Unattached teams are not permitted. Team entries must include copies of the individual entry forms if they are not submitted with the originals.

CLUB EVENT: Each club will be entered automatically in the club event. The three clubs accumulating the most yardage in each division will receive an award. Three divisions will be recognized based on the number of swimmers entered in the event from each club, as determined by the event host and Long Distance Committee chair. Relay yards will not be counted.

AWARDS: USMS Championship medals will be awarded in each age group to the top 10 swimmers in the individual event and the top 6 relay teams in each age group relay team event. First place finishers in individual and team relay events also receive USMS Champion patches. Distinctive awards will be given to the top 3 Clubs in each division of the Club event.

RULES: Drafting, floatation and propulsive devices (pull buoys, fins, paddles, wet suits, etc.) are not permitted. To ensure that drafting does not occur, no more than two swimmers may share a lane. If two swimmers share a lane, they should each swim on one side of the lane during the entire race (i.e. no "circle" swimming). USMS Long Distance Swimming rules require a starter/referee be present during the swim. Each swimmer must have a verifier to count lengths, record cumulative splits and time the event with a stopwatch. The verifier must sign the official entry form. Distances are to be rounded down to the nearest completed five yard increment (i.e., round 2764 yards to 2760). (See Venue section for conversion from meters to yards.) Swimmers who change age groups during January may enter twice but must swim the event twice, once in each age group. No adjustment may be made for swims completed at altitude. Split sheets must be kept for each swimmer and a copy included with your entry. Using a stopwatch, record cumulative split times to the nearest second and tenth or hundredths for each 50 split.

FEES: Individual entry fees are US \$5 per swimmer for US (\$8 for non-US swimmers). Team entry fees are US \$15 per relay (\$18 for non-US entries). All fees are non-refundable. Make checks payable to Tualatin Hills Barracudas and mail entries to the address below. International entrants please submit US funds via international money order or bank check drawn on a bank with a US Affiliate. **ENTRIES MUST BE RECEIVED by February 10, 2003.** Swimmers submitting incomplete entries will be contacted by collect phone call or email.

T-SHIRTS: A 2003 USMS One Hour Postal National Championship T-shirt is available at a cost of \$15. (International orders please add US \$5 postage for each shirt.)

MORE INFO: Address questions to

Kristine Lewis, Event Director - Tualatin Hills Barracudas
16055 SW Walker Rd #126 Beaverton, OR 97006
503-641-9486
email: onehour@swimoregon.org
Additional entries / info: www.barracudas.org



Relay Entry Form - Use only for relay entries

Club: _____

Contact Person: _____

Mail results/awards to:

Contact Address: _____ City _____

State: _____ Zip: _____ Country: _____ Club Abbreviation: _____

Swimmer # 1: _____	_____	_____	_____
Name as it appears on USMS Registration Card	Gender	Age	Yards Swum
Swimmer # 2: _____	_____	_____	_____
Name as it appears on USMS Registration Card	Gender	Age	Yards Swum
Swimmer # 3: _____	_____	_____	_____
Name as it appears on USMS Registration Card	Gender	Age	Yards Swum
Swimmer # 4: _____	_____	_____	_____
Name as it appears on USMS Registration Card	Gender	Age	Yards Swum

Total Team Yards: _____
Team Entry Fees: US \$15 (\$18 for non-US entries).
Payment in US \$ from US Banks or international Money Order ONLY

Please note: An individual entry form (next page) and individual event entry fees for each team participant must accompany this team entry form with the team entry fee. Individual Entry Form: Use only for individual entries.

2003 USMS One Hour Postal Swim National Championship Individual Entry Form

NAME _____ USMS Reg. NUMBER _____
(As it appears on registration card) (Include COPY of 2003 USMS Reg.)

ADDRESS _____ PHONE _____

CITY _____ STATE _____ ZIP _____ GENDER M F

E-Mail Address: _____ AGE _____ BIRTHDATE _____
(MM/DD/YY)

CLUB _____ CLUB ABBR. _____

I, the undersigned participant, intending to be legally bound, hereby certify that I am physically fit and have not been otherwise informed by a physician. I acknowledge that I am aware of all the risks inherent in Masters Swimming (training and competition), including possible permanent disability or death, and agree to assume all of those risks. AS A CONDITION OF MY PARTICIPATION IN THE MASTERS SWIMMING PROGRAM OR ANY ACTIVITIES INCIDENT THERETO, I HEREBY WAIVE ANY AND ALL CLAIMS FOR LOSS OR DAMAGES CAUSED BY THE NEGLIGENCE, ACTIVE OR PASSIVE, OF THE FOLLOWING: UNITED STATES MASTERS SWIMMING, INC., THE LOCAL MASTERS SWIMMING COMMITTEES, THE CLUBS, HOST FACILITIES, MEET SPONSORS, MEET COMMITTEES, OR ANY INDIVIDUALS OFFICIATING AT THE MEETS OR SUPERVISING SUCH ACTIVITIES. In addition, I agree to abide by and be governed by the rules of USMS.

I certify that I have read the rules of this competition and that on _____ I swam _____ yards at _____
(Date) (Distance swum) (Pool name/City)

Swimmer's Signature

Entry Fee \$5.00 (US Only) \$8.00 (International/non-US) = \$ _____

T-shirt Order: Indicate T-shirt Quantity Ordered: \$15/shirt = \$ _____

Small ___ Medium ___ Large ___ X-Large ___ XX-Large ___

International @ \$20/shirt: (includes shipping) = \$ _____

TOTAL (US \$): = \$ _____

Verifier's Signature

Include: Masters 2003 Registration Card,
 Official Entry form and split sheet
 Make Checks Payable To: Tualatin Hills Barracudas
 Send Entries to: Tualatin Hills Barracudas Attn: One Hour Swim
 Postal Meet 16055 SW Walker Rd # 126 Beaverton, OR 97006
 Must be RECEIVED by February 10, 2003

Results: Electronic results via email address listed above
 Paper results via US Postal

Awards: Please check if you **DO NOT** wish to receive your
 - Championship Medal
 - Patch



Record Split Entries using **CUMULATIVE** split times to the nearest second and tenth or hundredth.

50	1050	2050	3050	4050	5050
100	1100	2100	3100	4100	5100
150	1150	2150	3150	4150	5150
200	1200	2200	3200	4200	5200
250	1250	2250	3250	4250	5250
300	1300	2300	3300	4300	5300
350	1350	2350	3350	4350	5350
400	1400	2400	3400	4400	5400
450	1450	2450	3450	4450	5450
500	1500	2500	3500	4500	5500
550	1550	2550	3550	4550	5550
600	1600	2600	3600	4600	5600
650	1650	2650	3650	4650	5650
700	1700	2700	3700	4700	5700
750	1750	2750	3750	4750	5750
800	1800	2800	3800	4800	5800
850	1850	2850	3850	4850	5850
900	1900	2900	3900	4900	5900
950	1950	2950	3950	4950	5950
1000	2000	3000	4000	5000	6000

Total Yardage: _____

Trim around outside heavy line, fill out & fold in the middle

ARIZONA LOCAL MASTERS SWIMMING COMMITTEE — CONSOLIDATED ENTRY CARD

Swimmer's Name _____ USMS # _____ Birthdate ____/____/____ Age: _____ Male: _____ Female: _____

Event #	FREE (Submitted Time)	BACK (Submitted Time)	BREAST (Submitted Time)	FLY (Submitted Time)	I.M. (Submitted Time)
50	• •	50	• •	50	• •
100	• •	100	• •	100	• •
200	• •	200	• •	200	• •
400/500	• •	MEET NAME & DATE: _____			• •
800/1000	• •	CLUB IF NOT ARIZ.: _____			• •
1500/1650	• •	TEAM NAME: _____			• •
T-shirt Size (circle one):		E-mail Address: _____			• •
S	M	L	XL	XXL	Emergency Contact/Telephone: _____

fold here ---- fold here

PLEASE READ CAREFULLY: Late or incomplete entries (no fee, incomplete entry card, incomplete entry data, no copy of USMS Registration Card), or entries postmarked after the due date MAY BE REJECTED.

ALL Masters swimmers will be required to send a photocopy of their USMS Registration Card along with their entry card. ALL Masters swimmers may be asked to show their USMS card, if requested, at the meet. THERE WILL BE NO EXCEPTIONS.

"I, the undersigned participant, intending to be legally bound, hereby certify that I am physically fit and have not been otherwise informed by a physician. I acknowledge that I am aware of all risks inherent in Masters Swimming (training and competition) including possible permanent disability or death, and agree to assume all of those risks. AS A CONDITION OF MY PARTICIPATION IN THE MASTERS SWIMMING PROGRAM OR ANY ACTIVITIES INCIDENT THERETO, I HEREBY WAIVE ANY AND ALL RIGHTS TO CLAIMS FOR LOSS OR DAMAGES INCLUDING ALL CLAIMS FOR LOSS OR DAMAGES CAUSED BY THE NEGLIGENCE, ACTIVE OR PASSIVE, OF THE FOLLOWING: UNITED STATES MASTERS SWIMMING, INC., THE LOCAL MASTERS SWIMMING COMMITTEES, THE CLUBS, HOST FACILITIES, MEET SPONSORS, MEET COMMITTEES, OR ANY INDIVIDUALS OFFICIATING AT THE MEETS OR SUPERVISING SUCH ACTIVITIES. In addition, I agree to abide by and be governed by the rules of USMS."

Please Sign AND Date: _____

Street Address: _____

City, State, Zip: _____

Make checks payable to and mail to the address specified on the Meet Information Sheet.

Arizona Masters Swimming



United States Masters Swimming 2003 Membership Application

Please print clearly. Your name on this form and on meet entry forms must be identical.

Last Name		First Name		Middle Initial	
Mailing Address			Daytime Phone No. ()		
City		State	Zip	Evening Phone No. ()	
Date of Birth Month	Day	Year	Age	Sex	Email
CLUB (Please circle) Arizona Masters Unattached			Today's Date		
TEAM (if any)					
Do you want to receive you newsletter by email or by US Postal Service? Please Circle Email Postal Service				Email address	

“I, the undersigned participant, intending to be legally bound, hereby certify that I am physically fit and have not been otherwise informed by a physician. I acknowledge that I am aware of all the risks inherent in Masters Swimming (training and competition), including possible permanent disability or death, and agree to assume all of those risks. AS A CONDITION OF MY PARTICIPATION IN THE MASTERS SWIMMING PROGRAM OR ANY ACTIVITIES INCIDENT THERETO, I HEREBY WAIVE ANY AND ALL RIGHT TO CLAIMS FOR LOSS OR DAMAGES, INCLUDING ALL CLAIMS FOR LOSS OR DAMAGES CAUSED BY THE NEGLIGENCE, ACTIVE OR PASSIVE, OF THE HOST FACILITIES, MEET SPONSORS, MEET COMMITTEES, OR ANY INDIVIDUALS OFFICIATING AT THE MEETS OR SUPERVISING SUCH ACTIVITIES. In addition, I agree to abide by and be governed by the rules of USMS.”

SIGNATURE _____ Check here ___ if you coach Masters Swimming

I WISH TO CONTRIBUTE TO THE FOLLOWING FOUNDATIONS. I HAVE ADDED THE ADDITIONAL AMOUNT TO MY 2003 REGISTRATION FEES.

___ \$1 or (_____) to The US Masters Swimming Foundation

___ \$1 or (_____) to The International Swimming Hall of Fame Foundation

This is a ___ new registration.

___ renewal registration. My 2002 number was _____.

YOU MUST PAY A FEE OF \$38 FOR THE CALENDAR YEAR (1 January – 31 December 2003). This membership expires 31 December 2003. If you join in September 2003, the fee is \$23. The fee allocation is \$13 for USMS, \$7 for Swim magazine and \$18 for the Arizona Local Masters Swim Committee.

Please make your check payable to **Arizona LMSC**. Mail the check along with this completed and signed application form to

**Marilyn Fogelson
991 E. Calle Mariposa
Tucson, AZ 85718**

Arizona LMSC Board

EXECUTIVE OFFICERS

CHAIRMAN	Sam Perry	<i>azperrys@hotmail.com</i>	480-941-0232
VICE CHAIRMAN	Katy James	<i>kjames@todassoc.com</i>	480-897-6411
SECRETARY	Kathi Bullock	<i>kbrnswim@msn.com</i>	602-923-1312
REGISTRAR	Marilyn Fogelsong	<i>MFogelsong@aol.com</i>	
TREASURER	Audra Troccko	<i>atroccko@compucom.com</i>	480-892-0502

BOARD MEMBERS

ARIZONA MOUNTAIN MASTERS	Erin Eastwood	<i>e_swims@hotmail.com</i>	
FORD AQUATICS	Jim Stites	<i>swim1@uswest.net</i>	520-529-9113
PHOENIX SWIM CLUB			
SEDONA SWORDFISH	Paul Cate	<i>paulcate@earthlink.net</i>	
SUN DEVIL MASTERS	Vern Fuller	<i>v.l.fuller@worldnet.att.net</i>	480-633-7250
AT LARGE	Dan Gruender	<i>ediebg@aol.com</i>	480-946-5805
AT LARGE	Edie Gruender	<i>ediebg@aol.com</i>	480-946-5805

COMMITTEE CHAIRPERSONS

TOP TEN	Barry Roth	<i>wbroth@earthlink.net</i>	520-296-4908
STATE RECORDS	Mark Gill	<i>mark.gill@asu.edu</i>	480-775-1485
TUCSON EQUIPMENT			
TUCSON SAFETY			
PHOENIX EQUIPMENT	Mark Gill	<i>mark.gill@asu.edu</i>	480-775-1485
PHOENIX SAFETY	Peggy Finch		480-496-9157
NEWSLETTER EDITOR	Doug Adamavich	<i>coruscant_az@yahoo.com</i>	480-786-1703
WEBMASTER	Stacy Izard	<i>sizard@chickenpickle.com</i>	602-751-1103
LONG DISTANCE/OPEN WATER	Kristi Wagner	<i>kwagner@bpa.arizona.edu</i>	520-795-1370
PARLIAMENTARIAN	Renee Sonne	<i>dsonne@cox.net</i>	602-953-1211
OFFICIALS REPRESENTATIVE	Judy Gillies	<i>jgillies@mindspring.com</i>	520-622-4129
FITNESS	Mitzi Schechter		602-430-0321
USMS COACHES REPRESENTATIVE	Jim Stites	<i>swim1@uswest.net</i>	520-529-9113
HISTORIAN	Edie Gruender	<i>ediebg@aol.com</i>	480-946-5805
SANCTIONS	Liz Hobbs	<i>LizHobbs@aol.com</i>	928-773-4655
HOSPITALITY			
SENIOR OLYMPICS	Dan Gruender	<i>ediebg@aol.com</i>	480-946-5805
IMMEDIATE PAST CHAIRMAN	Helen Bayly	<i>helenb2@mindspring.com</i>	520-795-3161

2003 Upcoming Events

01/01-01/31	USMS One Hour Postal Championship any pool	SCY any place	Your City, US
01/01-02/28	1650 Postal any pool	SCY any place	Your City, US
01/05	Mission Valley Pancake Pentathlon Tierrasanta Recreation Center Pool	SCY City of San Diego	San Diego, CA
01/11	Las Vegas SCY Meet New City Municipal Pool	SCY City of Las Vegas	Las Vegas, NV
02/02	Polar Bear Meet Hillenbrand Aquatic Center	SCY U of A	Tucson, AZ
02/09	Gary Grandi Memorial Swim Urho Saari Swim Stadium	SCY City of El Segundo	El Segundo, CA
03/08	Sun Devil Invite Mona Plummer Aquatics Complex	SCY ASU	Tempe, AZ
04/04-04/06	Short Course State Mona Plummer Aquatics Complex	SCY ASU	Tempe, AZ
05/15-05/18	USMS Short Course Nationals Mona Plummer Aquatics Complex	SCY ASU	Tempe, AZ
06/22	Grand Canyon State Games Student Recreational Center	SCY ASU	Tempe, AZ

UNITED STATES MASTERS SWIMMING

History and Mission

United States Masters Swimming (USMS) is a swimming program for adults aged eighteen and over. Begun in 1971, its membership has grown to more than 35,000 by the end of the 20th century. The USMS has the following mission, goals and objectives:

Mission Statement of United States Masters Swimming

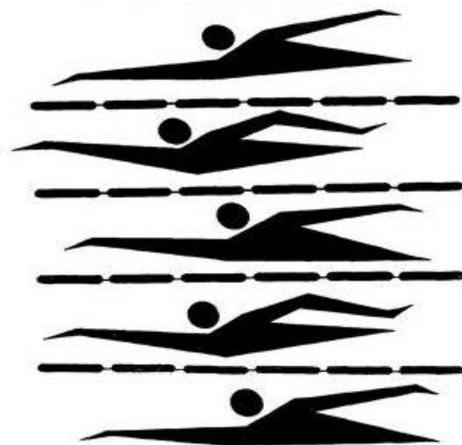
To promote fitness and health in adults by offering and supporting Masters Swimming programs.

Goals and Objectives

- To encourage and promote improved physical fitness and health in adults.
- To offer adults the opportunity to participate in a lifelong fitness and/or competitive swimming program.
- To encourage organizations and communities to establish and sponsor Masters Swimming programs.
- To enhance fellowship and camaraderie among Masters swimmers.
- To stimulate research in the sociology, psychology, and physiology of Masters Swimming.

Swim Arizona

A quarterly newsletter for registered members of the
Arizona LMSC of United States Masters Swimming.



www.arizonamasters.org